

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

OYSTER OPTICS, LLC,

Plaintiff,

v.

CISCO SYSTEMS, INC.,

Defendant.

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Case No. 2:20-CV-00211-JRG

**PLAINTIFF OYSTER OPTICS, LLC'S
OPENING CLAIM CONSTRUCTION BRIEF**

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I. INTRODUCTION

In this action, Oyster accuses Cisco Systems, Inc. (“Cisco”) of infringing U.S. Patent Nos. 6,665,500 (the “’500 patent”) (Ex. 1¹), 8,913,898 (the “’898 patent”) (Ex. 2), and 10,205,516 (the “’516 patent”) (Ex. 3). This Court has previously issued a total of four orders construing the claims of both the ’898 patent and ’500 patent. Where this Court has previously construed a term at issue in this, Oyster requests the same construction be applied in this case. In contrast, especially with regard to “phase modulate” and “output data” Cisco request a construction contrary to the Court’s prior decision on the issues.

For the remaining disputes, Oyster proposes constructions that are faithful to the plain and ordinary meaning of the claim terms. And in each instance, Oyster’s proposals are fully consistent with the intrinsic record, including, most notably, the claim language itself. In short, Oyster’s claim-construction methodology and proposals are consistent with the factual record and controlling law.

Cisco’s proposals, on the other hand, are inconsistent with the intrinsic record and in conflict with controlling law. Cisco repeatedly seeks to burden clear and ordinary terms with artificial and extraneous baggage, but cannot point to any disclaimer or lexicography to do so. This invites reversible error. *E.g.*, *JVW Enters. v. Interact Accessories, Inc.*, 424 F.3d 1324, 1335 (Fed. Cir. 2005). Indeed, many of Cisco’s narrow proposals are inconsistent with the intrinsic record. For other proposals, Cisco’s constructions are inconsistent with the language in the claim itself. This is also improper under controlling law—and certainly can only ultimately work to confuse jurors rather than help them.

Accordingly, this Court should reject Cisco’s faulty and unsupported proposals and adopt Oyster’s proposed constructions.

¹ All exhibits are attached to the concurrently filed Declaration of Paul A. Kroeger.

II. BACKGROUND OF THE PATENT-IN-SUIT AND RELATED LITIGATION

The asserted patents can be grouped into two separate families, all of which share a common inventor, Peter “Rocky” Snawerdt, founder and CEO of Oyster Optics, Inc. The ’500 patent is not related by continuation or division to any other U.S. patent. However, it does cite and incorporate by reference U.S. patent application serial no. 09/765,153, another patent application of Mr. Snawerdt’s which issued as U.S. Patent No. 6,594,055. ’500 patent at 2:51–56, 3:6–11.

The ’898 and ’516 patents are part of the “Group 2” family of patents that were previously in front of this Court, which also consists of U.S. Patent Nos. 7,620,327 (the “’327 patent”); 8,374,511 (the “’511 patent”); 9,363,012. Both the ’898 and ’516 patents claim priority to the ’327 patent and share a common specification. Each of the claimed systems and methods demonstrate a significant advancement over the state of the art, as they facilitate novel ways of providing a more rapid, secure, and reliable communication of enormous quantities of data over great distances.

A. The Prior Claim Construction Orders

As noted above, the patents at issue have been construed several times before. The ’898 patent was previously construed by the Court in the following Orders:

- Claim Construction Memorandum and Order, *Oyster Optics, LLC v. Coriant America, Inc.*, Case No. 2:16-CV-1302 (Dkt. No. 190 Dec. 5, 2017) (construing terms of the ’898 patent including “phase modulation”) (Ex. 4);
- Memorandum Opinion and Order, *Oyster Optics, LLC v. Coriant America, Inc.*, Case No. 2:16-CV-1302 (Dkt. No. 615) (clarifying the construction of “phase modulation” as used in the ’898 patent) (Ex. 5); and
- Claim Construction Memorandum and Order, *Oyster Optics, LLC v. Infinera Corporation*, Case No. 2:18-cv-00206 (Dkt. No. 62 May 3, 2019) (the *Infinera I Markman* Order) (Ex. 6) (construing the term “output data” in the ’898 patent);

Additionally, certain terms of the '898 Patent were construed by Judge White of the Northern District of California in *Oyster Optics, LLC, v. Ciena Corporation*, Case No. 4:17-cv-05920 (Dkt. No. 127 August 10, 2020) (Ex. 7)

The term “phase modulate” and its grammatical variants as used in the '500 patent was previously construed by the court in the following: Claim Construction Memorandum and Order, *Oyster Optics, LLC v. Infinera Corporation*, Case No. 2:19-cv-00-257-JRG (Dkt. No. 88, July 23, 2020) (Payne, M.J.) (the “*Infinera II Markman Order*”) (Ex. 8).

B. The Prior Construction of “Phase Modulate” by This Court

As the parties have agreed to use the Court’s construction of “Phase Modulate” for the '898 patent but dispute the construction of the same, and closely-related, terms as used in the '500 patent, Oyster summarizes the Court’s prior Orders construing this term below.

The '898 patent asserted here, was previously asserted in a set of cases before this Court that were consolidated for pre-trial purposes as *Oyster Optics, LLC v. Coriant America Inc., et al.*, Case No. 2:16-cv-01302-JRG (the “*Coriant Action*”). The '500 patent was not asserted in those cases. Cisco was a defendant in one of those consolidated cases and participated in the consolidated *Markman* briefing and arguments.

The parties in the *Coriant Action* presented competing constructions for the term “phase modulate” and related terms as it was used in the '898 patent and other patents-in-suit. In its December 5, 2017 claim construction memorandum and order, the Court adopted the construction advanced by the defendants: “alter the phase of light while keeping the amplitude of the light constant to create an optical signal having a phase that is representative of data.” Ex. 4 at 18.

The defendants in the *Coriant Action*, then moved for partial summary judgment of non-infringement based on the absence of “phase modulation” under the Court’s construction. Oyster opposed this motion, arguing that it presented an issue that was not addressed by the parties during the *Markman* proceedings, namely whether the term “phase modulation” precluded any alteration of amplitude at any time, and asking the Court to clarify its construction to resolve this question. Ex. 5 at 4. The Court granted Oyster’s request and clarified the construction to be: “alter the phase

of light to create an optical signal having a phase that is representative of data. Use of phase modulation excludes use of amplitude modulation.” *Id.* at 9. In other words, the Court removed the requirement that amplitude be “constant,” but instead excluded explicit “amplitude modulation.”

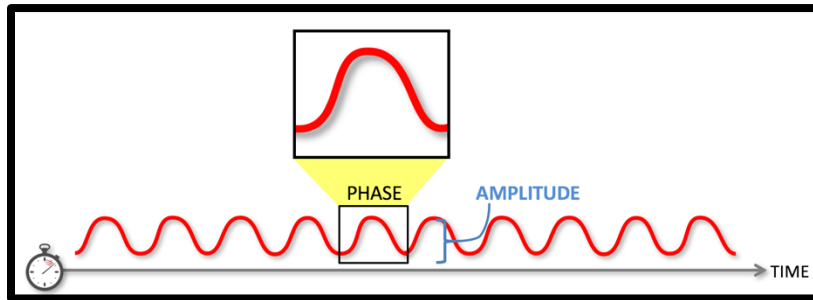
Before bringing the current case against Cisco, Oyster brought an action asserting only the ’500 patent against Infinera and related entities. The Defendants in that case requested that the Court’s construction of the “phase modulation” as to the ’898 patent should be applied to “phase modulation” as used in the ’500 patent. This Court rejected that argument, finding “there a key differences between the patents” precluding the use of the same construction, including that “the thrusts of the two patents are fundamentally different.” Ex. 8 at 13. Accordingly, the Court construed “phase modulation” as used in the ’500 patent to mean: “alter the phase of light to create an optical signal having a phase that is representative of data.” *Id.* at 16.

C. Transmitting Digital Data on Light Waves Using Modulation

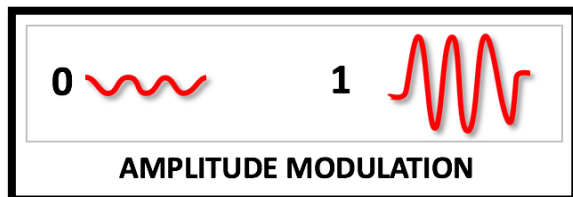
The Court is familiar with the concepts of phase modulation and amplitude modulation from its prior Claim Construction Orders, so this introduction to these concepts will be brief.

Modern high speed telecommunications network systems use light waves for digital data transmission. Transmitters and receivers are important components of these systems, because they perform key aspects of the encoding, transmitting, receiving, and decoding functions for optical signals. In an optical telecommunications network, a transmitter transmits signals from one location to another location, where a receiver receives the optical signals. *See* Ex. 1, ’500 patent at 1:13–22.

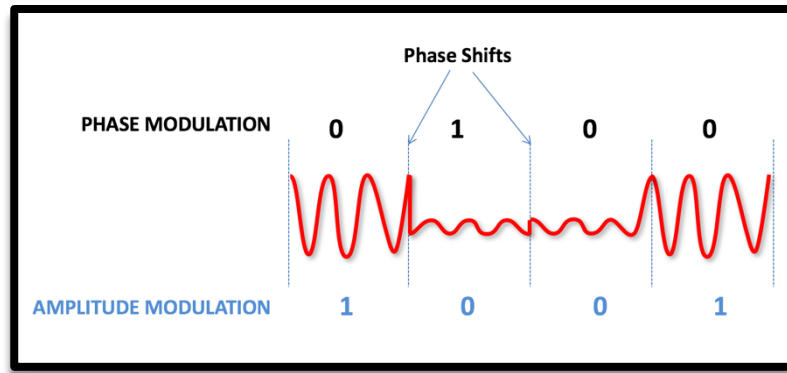
A light wave is defined by various properties including amplitude and phase. When depicted as in the figure below, amplitude can be understood as the height of the wave, and phase as the position of the wave at a fixed point in time.



For digital data transmission, one or more of these wave properties can be modified to represent each of two possible binary values (0 or 1). For phase modulation, this is often depicted as a relative displacement such that the peaks and troughs occur at different times. The figures below show how either amplitude or phase can be modulated to communicate a digital 0 or 1:

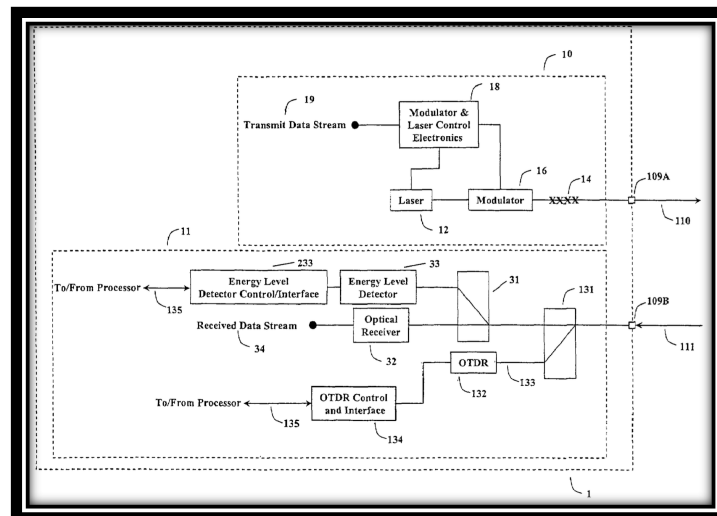


Combining modulation strategies allows for the loading of even more information on a single carrier wave. For example, a single wave can be phase- *and* amplitude-modulated so that it can convey two different streams of digital data on the same carrier light wave. This is depicted in the below figure:



D. Energy Level Detectors

The '898 and '516 patents incorporate a number of novel combinations for enhancing the function of optical networks – features especially useful for monitoring high-speed, high-bandwidth optical networks with a low tolerance for signal degradation. For example, the patents teach novel combinations with receiver-side energy level detectors. As shown in the below example, detectors can tap a portion of the optical signal, convert the optical energy into an electrical signal, and then average those electrical signals. Using this novel approach, the systems can monitor the optical power of network transmissions—and do so continuously. The system can then trigger alarms if the power falls below various acceptable energy threshold values. *See, e.g.,* Ex. 2, '898 patent at Fig. 2 at 31, 33, 233.



This novel combination of structures, in turn, provides benefits and advancements in reliability, speed, and security of the optical transmissions. For example, this combination ensures

that the telecommunications system maintains a certain threshold of power and, therefore, maintain a reliable and rapid transmission rates. *Id.* It also “provid[es] an optimized cost of implementation benefit to the customer.” *See, e.g.*, ’327 patent at 2:64-3:8.

III. CLAIM CONSTRUCTION PRINCIPLES

The “claim construction inquiry . . . begins and ends in all cases with the actual words of the claim.” *Teleflex, Inc. v. Ficos N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002). Thus, “[q]uite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular terms.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). “To begin with, the context in which a term is used in the asserted claim can be highly instructive.” *Id.*

There is a “heavy presumption” that claim terms carry their “full ordinary and customary meaning, unless [the accused infringer] can show the patentee expressly relinquished claim scope.” *Epistar Corp. v. ITC*, 566 F.3d 1321, 1334 (Fed. Cir. 2009). And because “the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention,” the task of comprehending the claims often “involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1313-14.

“There are only two exceptions” in which claim terms are not given their full ordinary and customary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Entertainment Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). The patent specification can also shed light on the meaning of claim terms. *Phillips*, 415 F.3d at 1315. However, without clear and unambiguous disclaimer or lexicography by the patentee, courts “do not import limitations into claims from examples or embodiments appearing only in a patent’s written description, even when a specification describes very specific embodiments of the invention or even describes only a single embodiment.” *JVW Enters.*, 424 F.3d at 1335. Similarly, statements during patent prosecution do not limit the claims unless the statement is a “clear and

unambiguous disavowal of claim scope.” *Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325 (Fed. Cir. 2003) (“[W]e have thus consistently rejected prosecution statements too vague or ambiguous to qualify as a disavowal of claim scope.”).

IV. DISPUTED CONSTRUCTIONS FOR THE '500 PATENT

Term	Oyster’s Proposed Construction	Defendants’ Proposed Construction
“phase modulate” and variants including: phase modulating (claims 1, 17)	alter the phase of light to create an optical signal having a phase that is representative of data	alter the phase of light to create an optical signal having a phase that is representative of data. <u>Use of phase modulation excludes use of amplitude modulation.</u>
phase-modulated optical signals (claim 1) / phase modulated optical data (claim 16)	“phase modulate” should be construed as set forth above. Otherwise, no construction necessary.	optical signals created by phase modulation, <u>not amplitude modulation</u>
amplitude-modulating (claims 1, 17) / amplitude-modulated signals (claim 16) / amplitude-modulated optical data (claim 17)	“amplitude modulate” and variants means “altering the amplitude of light to create an optical signal that is representative of data.” Otherwise no construction necessary.	optical signals created by amplitude modulation, <u>not phase modulation</u>
“mode” (claims 1, 16, 17)	No construction necessary.	period during which at least one specific optical data signal <u>is either amplitude modulated or phase modulated, but not both</u>

These four terms all present the same dispute. The parties agree that phase modulation requires “alter[ing] the phase of light to create an optical signal having a phase that is representative of data,” in accord with the Court’s construction of the term in the Prior Litigation. The sole dispute between is whether the construction of “phase modulation” should “exclude[] use of amplitude modulation,” and vice-versa—whether amplitude modulation excludes phase modulation. This exact dispute was recently presented to this Court in the *Infinera* action, and it ruled in Oyster’s favor. *See generally*, Ex. 8.

Specifically, in the context of the '500 patent, phase modulation and amplitude modulation are not mutually exclusive. They can both be used by the same system, and indeed at exactly the same time. This is stated explicitly and clearly in the “Summary of the Present Invention” section of the patent, which states:

The present invention thus permits a phase-modulated transmission mode or an amplitude-modulated transmission mode, or both a phase and amplitude modulated transmission mode, which can permit the transmitter to work with different types of receivers.

Ex. 1, '500 patent at 2:41–47 (emphasis added). A construction of “phase modulate” that “excludes” amplitude modulation and amplitude modulate that excludes phase modulation, as proposed by Defendants, is contrary to this explicit disclosure of a “both a phase and amplitude modulated” mode.

The summary section goes on to describe a “second mode” where the light is amplitude modulated (*id.* at 2:63–64) and where “the optical signal may or may not also be phase modulated” (*id.* at 3:1–3). The specification also describes other ways of combining phase modulation with amplitude modulation, including in an “alternating stream” or a “mixed” signal. *Id.* at 3:27–30, 3:47–50, 3:62–64, 4:35–42. Magistrate Payne, in construing the claims in *Infinera*, specifically found that the teaching of a “‘specialized receiver,’ which ‘can read a *mixed* optical signal of both phase-modulated and direct and delayed amplitude-modulated signals’” undercut the argument that phase modulation should exclude amplitude modulation. Ex. 8 at 10.

These combinations of phase modulation and amplitude modulation are not just described in the specification, but also expressly claimed. Each of the independent claims 1, 10, 11, 16, and 17 requires the use of both phase modulation and amplitude modulation. Some claims require that they both be used in a single mode. For example, claim 19 claims a “second alternate transmission mode” wherein “the light is *both* amplitude-modulated *and* phase-modulated.” Ex. 1, '500 patent at 10:26–28 (emphasis added).

Cisco’s proposed construction both excludes preferred embodiments and renders claims such as claim 19 incomprehensible. It cannot be that the term “phase modulate” in the context of

the '500 patent “excludes” amplitude modulation, and vice-versa, when the patent discloses and claims modes that utilize both phase modulation and amplitude modulation simultaneously. Accordingly, Cisoc’s proposed construction must be rejected. *See Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1308 (Fed. Cir. 2003) (construction that excludes a preferred embodiment “is rarely, if ever correct”); *Phillips*, 415 F.3d at 1314 (“the claims themselves provide substantial guidance as to the meaning of particular terms.”).

Cisco’s proposed construction must also be rejected under the doctrine of claim differentiation. Claim 18 claims a “first transmission mode” that is phase-modulated but is “not amplitude-modulated.” Ex. 1, at 10:14–16, 10:22–25. If “phase modulate” in the context of the '500 patent necessarily excluded amplitude modulation, then claim 18 and its requirement that the light “is not amplitude-modulated” would be superfluous, having exactly the same scope as the parent claim 17. *Tandon Corp. v. U.S. Intern. Trade Commn.*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) (“To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.”); *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003) (claim differentiation “is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.”) *See also*, Ex. 8 *Infinera II Markman* Order at 11 (“the doctrine of claim differentiation bolsters Oyster’s position on this record”).

In the absence of clear and unambiguous disclaimer or lexicography by the patentee, the term must be given its full ordinary and customary meaning. *Thorner*, 669 F.3d at 1365. There is nothing in the specification or file history of the '500 patent that constitutes clear and unambiguous disclaimer or lexicography that would permit narrowing the term from this plain meaning and excludes the use of amplitude modulation from phase modulation or phase modulation from amplitude modulation.

Cisco may argue (as *Infinera* previously did to this Court) that the “phase modulation” in the ’500 patent is limited because it incorporates the application that lead to the ’055 patent by reference. Ex. 1, ’500 patent at 2:51–56, 3:6–11. The ’816 patent is a continuation-in-part of the ’055 patent and was construed by this Court in the *Coriant* Action to use phase modulation that excludes amplitude modulation similar to the ’898 patent as discussed above. Accordingly, Cisco may argue that the same construction applies here. In construing this term, Magistrate Payne rejected the argument that the mere incorporation by reference of the ’055 patent called for a claim construction that excluded phase modulation:

[T]here are key differences between these patents that do not support Defendants’ conclusion. First, contrary to Defendants’ assertion, the thrusts of the two patents are fundamentally different. ***Whereas the ’055 Patent is specifically directed to a “secure fiber optic data transmission system,” ’055 Patent at (54) (emphasis added), the ’500 Patent concerns compatibility between different types of transmitters and receivers....*** True, the ’500 Patent acknowledges the security benefits and drawbacks of phase- and amplitude-modulation, but only to explain the underlying problem—lack of compatibility between transmitters and receivers that use these different types of modulation. ***Second, unlike the ’500 Patent, the ’055 Patent does not disclose an amplitude modulator.... Third, the independent claims of the ’055 Patent specifically exclude a signal that is both phase- and amplitude-modulated...*** These material differences defeat any argument that Oyster’s proposed construction is inconsistent with either its other patents or with the Court’s prior construction of “phase modulate.”

Ex. 8, *Infinera* Claim Construction Order at 13-14 (emphasis added)

For these reasons, the Court should adopt Oyster’s construction.

V. DISPUTED CONSTRUCTIONS FOR THE ’898 PATENT

A. “a transmitter having a laser, a modulator, and a controller” (’898 cl. 1, 14)

Oyster’s Proposed Construction	Cico’s Proposed Construction
No construction necessary	“transmitter containing a laser, a modulator, and a controller”

The “claim construction inquiry ... begins and ends in all cases with the actual words of the claim.” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002). Indeed, where a term is used in accordance with its plain meaning, the court should not replace it with different or additional language. *Thorner*, 669 F.3d at 1366-67 (“we do not redefine words. Only the patentee can do that.”).

Here, Cisco's construction is **identical to the** disputed phrase except that it substitutes "having" for "containing." Cisco's construction is in keeping with how Judge White of the Northern District of California recently construed the phrase. Ex. 7, *Ciena I Markman* Order at 21-22. With all due respect to the Northern District of California, this construction fails under controlling law.

"There are only two exceptions" in which claim terms are not given their full ordinary and customary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner*, 669 F.3d at 1365. The Federal Circuit has warned that courts "do not import limitations into claims from examples or embodiments appearing only in a patent's written description, even when a specification describes very specific embodiments of the invention or even describes only a single embodiment." *See JVW Enters.*, 424 F.3d at 1335.

Here, the patentee is plainly not acting as his own lexicographer in using the word "having." "Having," as used in the '898 patent, is not a term of art – the term is used in its plain English sense. There is nothing in the specification indicating that that patentee meant to claim anything other than a transmitter "having" a laser, a modulator, and a controller as that term is used in its ordinary sense.

As support for his decision, limiting "having" to "containing" Judge White found that the specification taught that "the laser, modulator, and controller must be located within the transmitter":

the specification shows the recited elements located on the transmitter, and further states that the transceiver card is designed to be swappable, which would not be possible if components were located outside of the card. (See '898 Patent at Fig. 2, 2:26-29, 6:36-42, 4:32-43.) Further, the specification states that "[t]he laser amplitude modulator and laser . . . define a transmitter for transmitting the optical signal over an optical fiber." (Id. at 1:30-32.) The specification thus suggests that the laser and modulator must be located on the transmitter (as the defining elements of that transmitter) and that the controller must be located, at least, on the transceiver card.

Ex. 7, *Ciena Markman Order*, at 21. Nothing in these citations to the specification show a clear disavowal of claim scope. To the extent Judge White was incorporating limitations into the claims

based on the preferred embodiment his decision was erroneous under *JVW Enters.* See *JVW Enters.*, 424 F.3d at 1335 (courts “do not import limitations into claims from examples or embodiments appearing only in a patent’s written description, even when a specification describes very specific embodiments of the invention or even describes only a single embodiment”). And the specification may be used to resolve ambiguity “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc. v. Ficosa N.A. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). The claims here do not lack this clarity, especially for the everyday word “having.”

Judge White also appeared to find prosecution history disclaimer based on statements Oyster made in IPRs, including IPRs brought by Cisco:

The prosecution history confirms this understanding. During the IPRs for the ’898 and ’327 Patents, Oyster distinguished prior art that had an external laser by arguing that the claims required the laser to be located on the transmitter. (See Dkt. No. 100-12 (“IPR2017-01870 Prelim. Resp.”)² at 20-21; Dkt. No. 100-17 (“IPR2017-01871 Prelim. Resp.”) at 23-25.)³ The examiner agreed with Oyster’s interpretations, citing a dictionary that defined “having” as “to hold, include, or contain as a part or whole.” (IPR2018-00070 Institution Decision at 17.)⁴

.... Moreover, Oyster interpreted “having” in the IPRs as excluding external elements. (IPR2017-01871 Preliminary Response at 21).

Ex. 7, *Ciena I Markman Order*, at 20-21. Again, none of Oyster’s statements amounted to disavowal of claim scope.

Oyster’s IPR statements merely pointed out that petitioner’s theory for showing the claimed “transmitter having a laser” went far beyond what the Ade prior art reference at issue called the entire “transceiver” and yet still did not show any laser. In other words, Oyster never doubted that the claim required a “transmitter having a laser;” because its statements really were not about a transmitter at all. Rather, it only contended that petitioner failed to show the “laser”

² Attached as Exhibit 9.

³ Attached as Exhibit 10.

⁴ Attached as Exhibit 11.

(or “light source”) at all, anywhere, because it merely drew a box around “light” 16 possibly coming from a laser “not shown.” Ex. 9 at 21–22.

For example, Oyster corrected and completed the PTAB record that Cisco presented by showing that “Cisco’s depiction makes clear that its box-drawing exercise did not cover any “laser,” but instead admittedly only covered (at arrow 16) CW “input light.” Moreover, Oyster noted that Cisco itself acknowledged that Ade’s ‘input light’ 16 is not a ‘laser,’ but instead ‘input’ light coming from a laser.” Ex. 9 at 21.

These facts confirm that Oyster did not do anything to disclaim drawing a “transmitter” box differently than what Ade called its transmitter, but only that petitioner could not show that the transceiver (which contains a transmitter and receiver in it) had a laser. This does not trump the plain meaning of the term or the using of “having” in contrast to “containing.” It cannot operate as a disclaimer of claim scope beyond the plain meaning. See *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1332 (Fed. Cir. 2004) (where “statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable” disclaimer). And it certainly cannot operate as a disclaimer carving out more than what any reasonable reading of Oyster’s statements in IPR would allow. *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314 1324 (Fed. Cir. 2003).

B. “output data” (’898 Patent, cl. 1, 14)

Oyster’s Proposed Construction	Ciena’s Proposed Construction
“data outputted by the receiver”	“the data encoded in the second optical signal and outputted by the receiver.”

Oyster proposes using the exact construction given by Court in the *Infinera I Markman Order*: “data outputted by the receiver.” Ex. 6, *Infinera II Markman Order* at 11-12. In that case, the Court rejected Infinera’s similar argument that “output data” should be construed as “an electronic data stream recovered from the second optical signal.” *Id.* at 6. The Court found that “Defendant has failed to demonstrate that the specification warrants a narrow interpretation of “output data.” *Id.* Cisco’s proposed construction suffers from the same defect.

As an initial matter, the term “output data” appears solely in the following claim limitation, found in both claims 1 and 14 of the ’898 patent:

a receiver configured to receive a second optical signal from the second optical fiber and to convert the second optical signal to **output data**;

Ex. 2, ’898 patent at 6:65-68, 8:7-9. The phrase is used in the specification only once with reference to an OTDR:

The OTDR preferably is monitored by an embedded processor with the box. The processor analyzes the OTDR *output data* to determine if the characteristics of the optical fiber system have changed relative to a reference characteristic.

Id. at 2:46-49. As the Court previously noted: “[t]his usage of ‘output data’ appears in a context different from how the term is used in Claim 1 [T]his evidence suggests that ‘output data’ is used generically, rather than having any specialized meaning.” Ex. 6, *Infinera II Markman* Order at 8.

The construction “data outputted by the receiver” follows the plain meaning of “output data,” but clarifies the term “output” by explaining what it is that is doing the outputting (i.e., the receiver). This accords with the claims, which explain that the receiver is configured to “convert the second optical signal to output data.” (Ex. 2, ’898 patent at 6:62-64.)

Cisco’s proposal is an obvious attempt to import limitations into the claims. Noteworthy, “encode” or its grammatical variants, does not appear in the specification. Presumably, Cisco’s will argue that “encoding” refers to the “optical modulation technique employed,” and that its new limitation is otherwise supported by, the following single sentence of the “Detailed Description” section of the ’898 patent specification:

Optical receiver **32** converts the optical signal from optical to electronic form to recover the electronic data stream **34** as appropriate for the optical modulation technique employed.

(Ex. 2, ’898 patent at 5:2-4.) The section where this sentence appears describes “[a] preferred embodiment of the present invention.” (*Id.* at 3:65-66.) Nothing in this section suggests that the features of this preferred embodiment are mandatory parts of the claimed invention. Indeed, other

parts of the same section describe features such as a “phase modulator” (*id.* at 4:36) or an “OTDR” (*id.* at 4:58) that are claimed only in dependent claims (*id.* at 7:7-8, 7:34-36, 8:19-20, 8:40-42).

The sentence that Cisco draws its construction from does not purport to define “output data.” Indeed, the phrase “output data” does not appear in that sentence or anywhere else in the “Detailed Description” section of the specification. Nowhere in the specification (or anywhere else in the intrinsic record) has Oyster made any statement to limit the full scope of the term. Accordingly, neither of the exceptions to the rule that claim terms have their “full ordinary and customary meaning” is satisfied, and Cisco’s effort to narrow the term from its plain meaning should be rejected. *See Thorner*, 669 F.3d at 1365.

C. “input data” (’898 Patent, cl. 1, 14)

Oyster’s Proposed Construction	Cisco’s Proposed Construction
data inputted to the transmitter	“the data inputted by the transmitter and en-coded in the first optical signal ”

Oyster’s proposal for “input data” is the mirror of its proposal for “output data.” It is also the construction entered by the Court in *Infinera II* pursuant to the agreement of the parties. Ex. 6, *Infinera II Markman Order* at 6. As with “output data,” “input data” is found only within one limitation of claims 1 and 14 of the ’898 patent:

a transmitter having a laser, a modulator, and a controller configured to receive ***input data*** and control the modulator to generate a first optical signal as a function of the ***input data***

Ex.2, ’898 patent at 6:55-59, 7:40-43.

The phrase is used in the specification only twice in the specification consistently with how it used in the claims:

An electronic controller 18, preferably manufactured directed on the printed circuit board of back- plane 7 (FIG. 1), controls modulator 16 and may provide power to laser 12[.] ***Input data*** 19 is fed to the controller 18, which then controls modulator 16 to modulate the light from laser 12 ***as a function of the input data*** 19.

Ex. 2, '898 patent at 4:38-43.

The electronics for the amplitude modulation of the laser and for the receiving of the optical data on the card thus is relatively simple. All that is required is a pulsing circuit for *pulsing the laser as a direct function of the input data* and a photodiode for the receiver.

Ex. 2, '898 patent at 1:47-51.

As with “output data,” the specific and the claims show an intent to use “input data” generically and not with any specialized meaning. The construction “data inputted to the transmitter” follows the plain meaning of “input data,” but clarifies the term “input” by explaining what the data is being input to (i.e., the transmitter). This accords with the claims, which explain that the receiver is configured to “convert the second optical signal to output data.” (Ex. 2, '898 patent, at 6:62-64.).

Cisco’s proposal is an obvious attempt to import limitations into the claims. Noteworthy, nothing in the claims or specification requires that the input data “be encoded in the first optical signal” as Cisco suggests. Instead, they require only that the “modulator to generate a first optical signal as a function of the *input data*.” By the plain teaching of the claims and specification, the input data need necessarily be encoded in the first optical signal. Nowhere in the specification (or anywhere else in the intrinsic record) has Oyster made any statement to limit the full scope of the term. Accordingly, neither of the exceptions to the rule that claim terms have their “full ordinary and customary meaning” is satisfied, and Cisco’s effort to narrow the term from its plain meaning should be rejected. *See Thorner*, 669 F.3d at 1365.

VI. DISPUTED CONSTRUCTIONS FOR THE '516 PATENT

A. “voltage” (‘516 Patent, Claims 1, 8, 12, 17, 19, 21)⁵

Oyster’s Proposed Construction	Cisco’s Proposed Construction
Plain and ordinary meaning. In the alternative: “difference in electrical potential expressed in volts”	“electric pressure that causes current to flow in a circuit”

The word “voltage” is used throughout the claims and specification of the '516 patent. *See, e.g.,* Ex. 3, '516 patent at 5:42-52 (“The output of photodetector 153 is an **electrical voltage** whose level correlates to the optical power at the input to the photodetector 153 based upon the photodetector 153 transfer optical to electrical conversion transfer function.”); 6:5-30 (“The electrical signal, after being scaled by the linear or logarithmic amplifier 155, is compared to reference voltages by one or more comparators.”); Claim 1 (“one or more comparators corresponding to the one or more energy level thresholds, wherein each of the one or more comparators: includes a first input coupled to an output voltage indicative of the photodetector voltage; includes a second input coupled to a corresponding reference voltage; and generates a comparator signal indicative of a comparison between the corresponding reference voltage and the output voltage.”). Nothing in how it used, indicated that it has some specialized meaning apart from how “voltage” would be understood to one of skill in the art.

Accordingly, the term does not require construction. The word “voltage” has a plain and ordinary meaning familiar to persons of skill in the art and lay jurors and is used by the '516 patent in a way consistent with that meaning. Nothing in Cisco’s proposed construction clarifies what voltage is as it used in the claims. Nor is there any need for such clarification. Interpreting the term “voltage” in these claims requires nothing more than “the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1313-14. There is no need to re-characterize this simple phrase in terms of other words. *Mentor H/S, Inc. v. Medical Device Alliance*,

⁵ In the interests of reducing the number of disputes presented to the Court, Oyster agrees to Cisco’s proposed construction of “receiver” as “receiver without a demodulator.”

Inc., 244 F.3d 1365, 1380 (Fed. Cir. 2001); *United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

To the extent that the Court believes that it is appropriate to construe this term, however, Oyster's proposed construction is the correct one. *TQP Development, LLC v. Merrill Lynch & Co., Inc.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J., sitting by designation ("some construction of the disputed language will assist the jury to under the claims")). Indeed, it is based on Cisco's own extrinsic evidence. For example, Webster's New World College Dictionary (1998) defines the term exactly as Oyster proposes: "difference in electronic potential, expressed in volts." Ex. 12. Likewise, the Penguin Dictionary of Electronics (1998) defines "voltage" as "[t]he potential difference between two point between two points in a circuit of device." Ex. 13. Cisco's definitions would only confuse the jury, introducing the concepts of "electrical pressure" and "current" that are not suggested by the specification or Cisco's extrinsic evidence.

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CERTIFICATE OF SERVICE

I hereby certify that the counsel of record who are deemed to have consented to electronic service are being served on March 12, 2021 with a copy of this document via the Court's ECF system.

DATED: March 12, 2021

Respectfully submitted,

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